

WHAT IS CLAIMED:

1. A rotor for a paper stock processing machine comprising:
at least one rotor blade having a leading front surface to be protected;
an anti-wear element comprising a base body and at least one wear-resistant
surface,
said anti-wear element is coupled to said leading front surface.
2. The rotor in accordance with claim 1, wherein said anti-wear element
is welded to said leading front surface.
3. The rotor in accordance with claim 1 in combination with a tank of a
paper stock processing machine, wherein said rotor is rotatably mounted within said
tank to circulate a stock suspension in said tank.
4. The rotor in accordance with claim 3, wherein said paper stock
processing machine is a primary pulper having a horizontally oriented screen, and said
rotor is rotatably mounted so that said leading front surface positioned adjacent said
screen.
5. The rotor in accordance with claim 3, wherein said paper stock
processing machine is a secondary pulper having a vertically oriented screen, and said
rotor is rotatably mounted so that said leading front surface positioned adjacent said
screen.
6. The rotor in accordance with claim 1, wherein said at least one wear-
resistant working surface comprises a layer of wear-resistant material that is firmly
coupled to said base.
7. The rotor in accordance with claim 6, wherein said at least one wear-
resistant material is fixed onto said base body by hard facing.
8. The rotor in accordance with claim 6, wherein said anti-wear element
is formed separately from said rotor, and said anti-wear element is welded to said at

least one rotor blade.

9. The rotor in accordance with claim 1, wherein said at least one rotor blade comprises a plurality of rotor blade having leading front surfaces, and at least one partial section of each said leading front surface of each rotor blade, radially inwardly from a free end, is completely covered by said anti-wear element.

10. The rotor in accordance with claim 1, wherein a portion of said anti-wear element coupled to said at least one rotor blade protrudes past said leading front surface.

11. The rotor in accordance with claim 10, wherein said portion extends past said leading front surface in a direction adapted to face a screen in a paper stock processing machine.

12. The rotor in accordance with claim 1, wherein a face of said anti-wear element is beveled at an angle α of between approximately 1° and 45° from parallel to a rotational axis of said rotor.

13. The rotor in accordance with claim 12, wherein said face of said anti-wear element is beveled such that a radial distance of a surface of said face from said rotational axis increases in a direction toward said leading front surface.

14. The rotor in accordance with claim 1, wherein said leading front surface has one of a cylindrical and conical ring segment shape.

15. An anti-wear element for protecting a leading front surface of a rotor blade, comprising:

a base body with a back side; and

at least one wear-resistant working surface,

wherein said back side is formed to correspond to a shape of, and to be coupled to, the leading front edge.

16. The anti-wear element in accordance with claim 15, wherein said back

side is welded to said leading front edge.

17. The anti-wear element in accordance with claim 15, in combination with a tank of a paper stock processing machine, wherein the rotor blades are adapted to circulate a stock suspension contained in said tank.

18. The anti-wear element in accordance with claim 15, wherein said wear-resistant working surface comprises a wear-resistant material.

19. The anti-wear element in accordance with claim 18, wherein said wear-resistant material comprises a non-rusting, alloyed high-grade steel.

20. The anti-wear element in accordance with claim 15, wherein said base body has one of a cylindrical and conical ring segment shape.

21. The anti-wear element in accordance with claim 15, wherein said wear-resistant working surface is welded to said base body and said wear-resistant surface is arranged to form at least one front edge that extends over an edge of said base body opposite said back side.

22. The anti-wear element in accordance with claim 21, wherein a curvature radius of said front edge is a maximum of approximately 2 mm.

23. A paper stock processing apparatus comprising:

a tank;

a screen;

a rotor rotatably coupled adjacent said screen;

said rotor comprising at least one rotor blade having a leading front surface, relative to a rotational direction of said rotor, and an anti-wear element coupled to said leading front edge;

said anti-wear element comprising a base body and a wear-resistant working surface.

24. The apparatus in accordance with claim 23, wherein said base body is

welded to said leading front surface, and said wear-resistant working surface is coupled to said base body.

25. The apparatus in accordance with claim 23, wherein a portion of said anti-wear element is arranged to protrude past said leading front surface.

5 26. The apparatus in accordance with claim 25, wherein said portion extends past said leading front surface in a direction adapted to face said screen.

27. The apparatus in accordance with claim 23, wherein said tank is a primary pulper tank.

10 28. The apparatus in accordance with claim 23, wherein said tank is a secondary pulper tank.

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